

Writing Prompts for Math

1. Solve a problem. Explain the mental steps used to solve a problem. Or explain the method used to solve it.
2. After learning a concept, have students explain what they did. If they can write it in words or well as an equation, you know they understand it.
3. Test for knowledge Pre and Post: Before learning a concept, have students explain what they know about it or what they think they know about it. Afterward, they write about what they learned and everything they know now. Include two examples of that concept in their writing.
4. Keep a math journal in which they write definitions or terms, concepts, etc.
5. Give the students the task of writing how they would teach someone else to solve _____ (equation, problem, etc.).
6. Write a set of directions for a student who was absent the day of this lesson. The student should be able to use your directions to solve _____ (a problem of that type) and to check the solution.
7. How are _____ and _____ (experimental probability/theoretical probability, or whatever two concepts are appropriate for your purposes) alike? How are they different? Explain.
8. Keep a math journal in a spiral notebook. On the first day have students write their math autobiography and include anything else about themselves that they wish to put in it. Every day, have them write something: what they understand, what they enjoy, what they don't understand, a question they might have. On test days, while students take the exam, you collect the journals and use that period to respond to them. This also helps you to see areas that may need reteaching, rethinking.
9. Joanne Simpson, meteorologist and NASA scientist, says that "science isn't just cold, hard facts. The crux is fitting unfitted things together and making them hand together. It's similar to composing music or art of poetry." Do you think this statement is true for mathematics? Explain why or why not.
10. Even Mirriam has written several "Animalimericks" like the one below. The rhyme scheme of a limerick is AABBA. Write a limerick that uses mathematical terms.

There was once a finicky ocelot	a
Who all the year round was cross a lot	a
Except at Thanksgiving	b
When he enjoyed living	b
For he like to eat cranberry sauce a lot	a
11. Write a one to two page history of you and math. Describe your past feelings and experiences in math and your hopes for this math class. Include how you feel about math, situations or moments that affected how you feel about it, what you hope to gain and what you hope to contribute to this class.
12. I have included a sample practice problem and the scoring rubric for the Oregon Math Assessment test. The sample problem is from the eighth grade but you can see what students of any level are expected to do. Writing is a major part of this assessment – it is no longer enough for students to be able to solve a problem; they also have to explain how they solved it.

Mama Murphy's Pizza Factory

_____ Precisely Correct _____ Essentially Correct _____ Not Correct

Directions to the student

This is an open-ended question. You will be evaluated on how well you show your understanding of mathematics and how well you explain it to others. Your solution should include these four components:

1. Paraphrase the problem. Tell what the problem is about in your own words.
2. Show all your solution steps.
3. Explain your thinking. Tell why you chose to work the problem the way you did.
4. Explain how you know your solution is reasonable.

Mama Murphy's Pizza Factory

Mama Murphy's Pizza factory has decided to make some new pizzas. They have mushrooms, pepperoni, sausage, and olives. How many different double-topping pizzas can they make with the four different toppings?

Explain your thinking at each step and your answer(s).

Scoring

Conceptual Understanding	1	2	3	4	5	6
Processes and Strategies	1	2	3	4	5	6
Communication	1	2	3	4	5	6
Interpret Reasonableness	1	2	3	4	5	6

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